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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GAGLIOSTRO, KEVIN M

ART UNIT PAPER NUMBER

2615

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,365

Applicant(s)

BELL ET AL.

Examiner

Kevin M. Gagliostro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 6 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 19, 23, 24, 26-29, 31 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 19, 23, 24, 26-29, 31 and 33-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendments, filed on 01/06/2005, have been entered and made of record. Claims 9, 19, 23, 24, 26, 27, 31, and 33-44 are pending.

Response to Arguments

2. Applicant's arguments, filed on 01/06/2005, with respect to the rejection(s) of claims 9, 19, and 26 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6,567,119 to Parulski et al.

Claim Rejections - 35 USC § 103

3. Claims 9, 19, 23, 24, 26, 27, 31 are rejected under 35 U.S.C. 103(c) as being unpatentable over Patent No. 5,499,294 to Friedman in view of U.S. Patent No. 6,567,119 to Parulski et al.

Regarding **claim 9**, Friedman describes a digital photography subsystem comprising:

A decryption module (Friedman: figure 3c, item 20) to accept image data and metadata from a digital camera, the metadata including a digital signature of the image data, to verify the digital signature of the image data, and to examine the metadata to determine authenticity of the image data (Friedman: column 6, lines 2-7); and a viewer module (or display) to display the image data when the decryption module indicates the image data is authentic (Friedman: figure 4);

Wherein the metadata comprises a geographic location (through the global positioning system (GPS)) of the digital camera when the image was captured (Friedman: column 4, line 60) and at least one of:

Date and time the image was captured (Friedman, column 4, line 59), identifier of the camera owner, identifier of the photographer, and focal distance (Friedman: column 4, line 61), white levels (Friedman: column 4, lines 59), f-stop (Friedman: column 4, line 59), brightness compensation (column 4, line 59), and distance for auto-focus when the image was captured (column 4, lines 61-63), and

Friedman further describes the use of a public key, taken from the image border or nameplate, as a serial number for identifying the camera for such purposes as warranty repair or replacement. The public key is in fact mathematically related to the camera's private key (column 6, lines 14-21). So, the public key can be

used as a means of identifying either the owner or photographer of the camera owner since every camera and it's owner has it's own unique means of identifying itself from any other camera.

However, Friedman does not teach a digital photography subsystem wherein the image data and metadata is associated with audit data indicating changes made to the image data since capture, and the viewer module is configured to display the audit data and the metadata. Parulski describes an editing step 82 where the metadata lists this editing data in the advanced edits list 100 (or audit data) to describe edits performed by an applications program other than modifying the standard FlashPix viewing parameters. In addition, the metadata may also include a copy of the unmodified thumbnail image in the thumbnail image data 98, which can be compared to the modified thumbnail image data 23 to determine if any changes have been made to the original image data by subsequent image editing applications (Parulski: column 6, lines 23-32 and figure 5). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the digital photography subsystem of Friedman to include image data and metadata associated with audit data indicating changes made to the image data since capture. One would have been motivated to modify the digital photography subsystem of Friedman to include image data and metadata associated with audit data indicating changes made to the image data since capture of Parulski in that if an "older" printer does not recognize the modifications made in the extension data, then the original image data could then be used (Parulski: column 6, lines 11-25).

Regarding **claim 19**, Friedman describes a method of generating secure digital photographic data comprising:

Capturing image data representing an image in the physical world by a digital camera (Friedman: column 3, lines 64-66);

Obtaining metadata associated with the captured image, the metadata comprising a geographic location of the digital camera when the image was captured, and at least one of: date and time the image was captured (Friedman: column 4, line 59), identifier of the camera owner, identifier of the photographer, and focal distance (Friedman: column, line 61), white levels (Friedman: column 4, line 59), f-stop (Friedman: column 4, line 59), brightness compensation (Friedman: column 4, line 59), and distance for auto-focus when the image was captured (Friedman: column 4, lines 61-63);

Friedman further describes the use of a public key, taken from the image border or nameplate, as a serial number for identifying the camera for such purposes as warranty repair or replacement. The public key is in fact mathematically related to the camera's private key (column 6, lines 14-21). So, the public key can be used as a means of identifying either the owner or photographer of the camera owner since every camera and it's owner has it's own unique means of identifying itself from any other camera.

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Digitally signing the image data and the metadata with a private key of an asymmetric key pair; and

Storing the image data and metadata in a memory of the digital camera.

Specifically, Friedman described an encryption module configured to digitally sign the image data prior to storage using a private key of an asymmetric key pair and to obtain metadata associated with the image data (column 5, lines 49-65).

However, Friedman does not teach method of generating secure digital photographic data wherein the metadata includes audit data indicating changes made to the image data since capture. Parulski describes an editing step 82 where the metadata lists this editing data in the advanced edits list 100 (or audit data) to describe edits performed by an applications program other than modifying the standard FlashPix viewing parameters. In addition, the metadata may also include a copy of the unmodified thumbnail image in the thumbnail image data 98, which can be compared to the modified thumbnail image data 23 to determine if any changes have been made to the original image data by subsequent image editing applications (Parulski: column 6, lines 23-32 and figure 5). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of generating secure digital photographic data of Friedman to include image data and metadata associated with audit data indicating changes made to the image data since capture. One would have been motivated to modify the method of generating secure digital photographic data of Friedman to include image data and metadata associated with audit data indicating changes made to the image data since capture of Parulski in that if an "older" printer does not recognize the modifications made in the extension data, then the original image data could then be used (Parulski: column 6, lines 11-25).

Regarding **claim 23**, Friedman in view of Parulski further describes the method of claim 19 wherein the private key is uniquely associated with the digital camera (Friedman, abstract).

Regarding **claim 24**, Friedman in view of Parulski further describes the method of claim 19 wherein the private key is uniquely associated with the manufacturer of the digital camera (Friedman, column 4, lines 38-40).

Regarding **claim 26**, Friedman describes a method of generating and authenticating digital photographs comprising:

Capturing image data representing an image in the physical world by a digital camera (Friedman: column 3, lines 64-66);

Obtaining metadata associated with the captured image, the metadata indicating characteristics of the image data (Friedman: column 4, lines 55-66);

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Determining a geographic location of the digital camera when capturing the image and wherein the metadata comprises the geographic location of the camera when the image was captured (Friedman: column 4, lines 66-67 and column 5, lines 1-4);

Digitally signing the image data and the metadata with a private key of an asymmetric key pair (Friedman: column 5, lines 49-65); and

Transferring the image data, the digital signature, and the metadata to a host system (Friedman: column 1, lines 4-45);

Authenticating the image data by the host system using the digital signature, a corresponding public key of the asymmetric key pair, and the metadata (Friedman: column 6, lines 2-15).

However, Friedman does not teach a method of generating and authenticating digital photographs comprising wherein updating audit data describing changes made to the image data, and associating the audit data with the image data and the metadata. Parulski describes an editing step 82 where the metadata lists this editing data in the advanced edits list 100 (or audit data) to describe edits performed by an applications program other than modifying the standard FlashPix viewing parameters. In addition, the metadata may also include a copy of the unmodified thumbnail image in the thumbnail image data 98, which can be compared to the modified thumbnail image data 23 to determine if any changes have been made to the original image data by subsequent image editing applications (Parulski: column 6, lines 23-32 and figure 5). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of generating and authenticating digital photographs of Friedman to include image data and metadata associated with audit data indicating changes made to the image data since capture. One would have been motivated to modify the method of generating and authenticating digital photographs of Friedman to include image data and metadata associated with audit data indicating changes made to the image data since capture of Parulski in that if an "older" printer does not recognize the modifications made in the extension data, then the original image data could then be used (Parulski: column 6, lines 11-25).

Regarding **claim 27**, Friedman in view of Parulski further describes the (currently amended) method of claim 26, wherein the metadata comprises at least one of:

Date and time the image was captured by the digital camera (Friedman: column 4, line 59), identifier of the camera owner, identifier of the camera owner, and

Friedman further describes the use of a public key, taken from the image border or nameplate, as a serial number for identifying the camera for such purposes as warranty repair or replacement. The public key is in fact mathematically related to the camera's private key (column 6, lines 14-21). So, the public key can be used as a means of identifying either the owner or photographer of the camera owner since every camera and its owner has its own unique means of identifying itself from any other camera.

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Focal distance (Friedman: column 4, line 61), white levels (Friedman: column 4, lines 59), f-stop (Friedman: column 4, line 59), brightness compensation (Friedman: column 4, line 59), and distance for auto-focus when the image was captured (Friedman: column 4, lines 61-63).

Regarding claim 31, Friedman in view of Parulski further describes the method of claim 26 further comprising displaying the image data when authenticated (column 4, lines 47-57).

5. Claim 28 is rejected under 35 U.S.C. 103(c) as being unpatentable over U.S. Patent No. 5,499,294 to Friedman in view of U.S. Patent No. 6,567,119 to Parulski further in view of U.S. Publication No. 2002/0001395 A1 to Davis et al.

Regarding **claim 28**, Friedman in view of Parulski describes the method of claim 27 but does not teach the method further comprising obtaining the date and time setting for the digital camera by a host system from a website controlled by at least one of the manufacturer and the distributor of the digital camera. Davis teaches a session mode wherein the camera operates under the control of parameters that govern that session (paragraph [0066], lines 2-4). In addition, Davis teaches that an external device may initiate that session (paragraph [0066], lines 6-8). An external device may in fact be a communications network, such as the Internet (figure 2, item 102). Davis also teaches that within the session parameters, the external device can instruct the camera to set the time and date (paragraph [0067], lines 3-6). Also, note that Davis teaches that the either the user can initiate a session or and external device can (paragraph [0066], lines 6-8). A non-user external device that initiates instructions to the camera could in fact comprise either the distributor or the manufacturer, as they are not the camera user. Therefore, it would have been obvious to one familiar to the art to combine the method taught in Friedman in view of Parulski with a website controlled from either the distributor or manufacturer to set the camera's time and date. One would have been motivated to modify Friedman in view of Parulski to include a website controlled by either the manufacturer or the distributor to keep the photographer from altering the photographing record in that it would be false and misleading as stated in Davis (paragraph [0065]).

6. Claim 29 is rejected under 35 U.S.C. 103(c) as being unpatentable over U.S. Patent No. 5,499,294 to Friedman in view of U.S. Patent No. 6,567,119 to Parulski further in view of U.S. Patent No. 6,587,949 to Steinberg.

Regarding **claim 29**, Friedman in view of Parulski describes the method of claim 26 but does not teach the method further comprising updating the private key for the digital camera by the host system from a website controlled by at least one of the manufacturer and the distributor of the digital camera. Steinberg teaches the initial programming of a security key, or private key, which is done with the initial set-up of the device, prior to its normal use (column 6, lines 45-58). Therefore it would have been obvious to one familiar to the art to combine the method taught in Friedman in

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view of Parulski with the programming of a private key prior to using the device. One would have been motivated to modify the method of Friedman in view of Parulski to include the programming (updating) of a private key in that with the user knowing the private key, they can then operate the computer to decrypt the encrypted data as stated in Steinberg (column 6, lines 58-60).

7. Claims 33, 34, 35, 37, 38, 39, 41, 42, and 43 are rejected under 35 U.S.C. 103(c) as being unpatentable over U.S. Patent No. 5,499,294 to Friedman in view of U.S. Patent No. 6,567,119 to Parulski further in view of U.S. Patent No. 6,359,837 to Tsukamoto.

Regarding claims 33, 37, and 41, Friedman in view of Parulski describes the digital photography subsystem of claim 9 (claim 33), the method of claim 19 (claim 37), and the method of claim 26 (claim 41) but does not teach the subsystem or method wherein the metadata further comprises a temperature reading obtained from thermometer on the digital camera at the time the image was captured. Tsukamoto describes obtaining weather information such as temperature from a temperature sensor (or thermometer) that is transferred to and recorded by the image recording apparatus together with an image (Tsukamoto: column 15, lines 20-39 and figure 14). Therefore it would have been obvious to one familiar to the art to combine the subsystem or method taught in Friedman in view of Parulski to include a temperature reading obtained from thermometer on the digital camera at the time the image was captured. One would have been motivated to modify the subsystem or method of Friedman in view of Parulski to include a temperature reading obtained from thermometer on the digital camera at the time the image was captured of Tsukamoto in that the user can carry the wristwatch and digital camera combination on a trip or mountain climbing and electronically record various situations (Tsukamoto: column 1, lines 29-44).

Regarding claims 34, 38, and 42, Friedman in view of Parulski further in view of Tsukamoto further describes the digital photography subsystem of claim 9 and the method of claims 19 and 26 wherein the metadata further comprises a barometer reading obtained from the barometer on the digital camera at the time the image was captured. Tsukamoto describes the use of an atmospheric pressure sensor (or barometer) (Tsukamoto: column 1, lines 29-38) that is transferred to and recorded by the image recording apparatus together with an image (Tsukamoto: column 15, lines 20-39 and figure 14).

Regarding claims 35, 39, and 43, Friedman in view Parulski further in view of Tsukamoto further describes the digital photography subsystem of claim 9 and the method of claims 19 and 26 wherein the metadata comprises a compass reading obtained from a compass on the digital camera at the time the image was captured. Tsukamoto describes the use of a compass that is transferred to and recorded by

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the image recording apparatus together with an image (Tsukamoto: column 15, lines 20-39 and figure 14).

8. Claims 36, 40, and 44 are rejected under 35 U.S.C. 103(c) as being unpatentable over U.S. Patent No. 5,499,294 to Friedman in view of U.S. Patent No. 6,567,119 to Parulski further in view of U.S. Publication No. 2003/0081950 to Gennetten et al.

Regarding claims 36, 40, and 44 Friedman in view of Parulski describes the digital photography subsystem of claim 9 (claim 36), the method of claim 19 (claim 40), and the method of claim 26 (claim 44), but does not teach the subsystem or method wherein the metadata comprises at least one fingerprint data obtained from a fingerprint reading device on the digital camera at the time the image was captured, the fingerprint data identifying the operator of the digital camera. Gennetten describes a camera 400 with a fingerprint sensor 430 used during normal operation of the camera and are used to identify the user of the camera (Gennetten: paragraph 0016 and figures 4 and 5). Therefore it would have been obvious to one familiar to the art to combine the subsystem or method taught in Friedman in view of Parulski to include metadata comprising at least one fingerprint data obtained from a fingerprint reading device on the digital camera at the time the image was captured, the fingerprint data identifying the operator of the digital camera. One would have been motivated to modify the subsystem or method of Friedman in view of Parulski to include metadata comprising at least one fingerprint data obtained from a fingerprint reading device on the digital camera at the time the image was captured, the fingerprint data identifying the operator of the digital camera of Gennetten in that user identification at least one user and associates them to their own camera user settings (Gennetten: paragraph 0003).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Gagliostro whose telephone number is 571-272-7363. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Gagliostro

05/16/2005



NGOC-YEN VU
PRIMARY EXAMINER